

SUN5000T-E 5 kW - 5 kWh

# Residential Energy Storage System

Up to  
**97.6%** Max. efficiency  
**10 years** Design life  
**IP65** Rating  
**5 years** warranty

Up to  
**< 45dB** Cooling noise  
**50%** rated power Max. output  
**240A** Max. charge/discharge current



100% unbalanced output of each phase



DC / AC couple to retrofit existing solar system



Support parallel working (up to 10 pcs) & generator access



Modular design, easy & flexible battery expansion



48 V low voltage battery, transformer isolation design



6 time periods for battery charge / discharge

## SUN5000T-E Technical specifications



### PV string input data

Max. DC input power	6,500 W	Rated PV input voltage	550 V (160 V ~ 800 V)
Start-up voltage	160 V	MPPT voltage range	200 V ~ 650 V
PV input current	13 A + 13 A	Max. PV ISC	17 A + 17 A
No.of MPP Trackers	2	No.of strings per MPP Tracker	1
Full load DC voltage range		350 V ~ 650 V	

### AC output data

Rated AC output & UPS power	5,000 W	Max. AC output power	5,500 W
AC output rated current	7.6 A / 7.2 A	Max. AC current	11.4 A / 10.9 A
Max. continuous AC passthrough	45 A	Peak power (off grid)	2 time of rated power, 10 s
Power factor	0.8 leading to 0.8 lagging	Total Harmonic Distortion (THD)	< 3% (of nominal power)
Grid type	Three phase	DC current injection	< 0.5% In
Output frequency & voltage		50 / 60 Hz; 3L / N / PE 220 / 380, 230 / 400 Vac	

### Efficiency

Max. efficiency	97.6%	Euro efficiency	97%
MPPT efficiency		99.9%	

### Protection

Output over voltage protection	DC Type II / AC Type III
Integrated	PV input lightning protection, anti-islanding protection, PV string input reverse polarity protection, insulation resistor detection, residual current monitoring unit, output over current protection, output shorted protection, surge protection

### Certifications

Max. efficiency	VDE4105, IEC61727/62116, VDE0126, AS4777.2, CEI 0 21, EN50549-1, G98, G99, C10-11, UNE217002, NBR16149/NBR16150
Safety EMC / standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2

### Battery model

Battery type		Lithium iron phosphate (LFP)	
Nominal energy	5.1 kWh	Usable energy <sup>[1]</sup>	4.7 kWh
Nominal voltage	51.2 V	Operating voltage range	44.8 V ~ 56.8 V
Battery voltage range	40 V ~ 60 V	Max. charging current	50 A (can be set)
Max. discharging current	120 A	External temperature sensor	Yes
Weight	110.2 lbs (50 kg)	Dimension (W x D x H)	25.6 x 9.4 x 18.7 inch (650 x 240 x 475 mm)
Charging curve		3 Stages / Equalization	
Charging strategy for li-ion battery		Self-adaption to BMS	

### General data

Operating temperature range	40°F ~ 140°F (-40°C ~ 60°C), 113°F (45°C) derating
Cooling noise	< 45 dB, smart cooling
Communication with BMS	RS485; CAN
Protection degree	IP65
Installation	Wall-mounted
Warranty	5 / 10 Years (optional)

[1] Test method: under STC condition, discharge to 2.5 V with a constant current of 0.5 c, rest 30 minutes; charge to 3.65 V with a constant current of 0.5 c, rest 5 minutes, then charge to 3.65 V with a constant current of 0.05 c and rest 30 minutes. Discharge with a constant current of 0.5 c till the voltage is 2.5 V. Information may be subject to change without notice during product improving. For the latest product specs, please refer to RoyPow website: [www.roypowtech.com](http://www.roypowtech.com)

All pictures shown are for reference only and data are based on RoyPow standard test procedures. Actual performance may vary according to local conditions.